

Amendments to the claims:

claims 1-14 (Canceled)

15. (Currently amended) Isolated nucleic acid encoding Apo-2DcR polypeptide comprising amino acid residues 30 to 161, 1 to 161, 1 to 236, or 1 to 259 of Figure 1A (SEQ ID NO:1), wherein said Apo-2DcR polypeptide binds Apo-2 ligand.

16. (Original) The nucleic acid of claim 15 wherein said nucleic acid encodes native sequence Apo-2DcR polypeptide comprising amino acid residues 1 to 259 of Fig. 1A (SEQ ID NO:1).

17. (Original) The nucleic acid of claim 15 comprising nucleotides 193 to 969 of Fig. 1A (SEQ ID NO:2).

18. (Original) A vector comprising the nucleic acid of claim 15.

19. (Original) The vector of claim 18 operably linked to control sequences recognized by a host cell transformed with the vector.

20. (Original) A host cell comprising the vector of claim 18.

21. (Currently amended) A process of ~~using a nucleic acid molecule encoding~~ producing Apo-2DcR polypeptide ~~to effect production of Apo-2DcR polypeptide comprising~~ culturing the host cell of claim 20 under conditions sufficient to express said Apo-2DcR polypeptide.

claims 22-29 (Canceled)

30. (Previously presented) An isolated nucleic acid molecule comprising a first polynucleotide sequence 95% or more identical to a second polynucleotide sequence selected from the group consisting of:

- (a) a polynucleotide sequence encoding amino acids 1 to 259 of SEQ ID NO:1;
- (b) a polynucleotide sequence encoding amino acids 30 to 259 of SEQ ID NO:1 and
- (c) a polynucleotide sequence complementary to any of the polynucleotide sequences in (a) or (b).

31. (Previously presented) The isolated nucleic acid molecule of claim 30 wherein said second polynucleotide sequence is (a).

32. (Previously presented) The isolated nucleic acid molecule of claim 30 which comprises polynucleotide sequence (a).

33. (Canceled).

34. (Previously presented) A method for making a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 30 into a vector.

35. (Previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 30.

36. (Previously presented) The recombinant vector of claim 35 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

37. (Previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 30.

38. (Previously presented) The recombinant host cell of claim 37 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

39. (Previously presented) A method for producing a polypeptide, comprising:  
(a) culturing a host cell comprising the vector of claim 35 under conditions suitable to produce the polypeptide encoded by said nucleic acid; and  
(b) recovering said polypeptide.

40. (Previously presented) An isolated nucleic acid molecule comprising a first polynucleotide sequence 95% or more identical to a second polynucleotide sequence selected from the group consisting of:  
(a) a polynucleotide sequence encoding an Apo-2DcR polypeptide having the complete amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209087;  
(b) a polynucleotide sequence encoding the mature Apo-2DcR polypeptide encoded by the cDNA clone contained in ATCC Deposit No. 209087; and  
(c) a polynucleotide sequence complementary to any of the polynucleotide sequences in (a) or (b) above.

41. (Previously presented) The isolated nucleic acid molecule of claim 40 wherein said second polynucleotide sequence is (a).

42. (Previously presented) The isolated nucleic acid molecule of claim 40 which comprises polynucleotide sequence (a).

43. (Previously presented) The isolated nucleic acid molecule of claim 40 wherein said second polynucleotide sequence is (b).

44. (Previously presented) The isolated nucleic acid molecule of claim 40 which comprises polynucleotide sequence (b).

45. (Previously presented) The isolated nucleic acid molecule of claim 40 wherein said second polynucleotide sequence is (c).

46. (Previously presented) The isolated nucleic acid molecule of claim 40 which comprises polynucleotide sequence (c).

47. (Canceled).

48. (Previously presented) The isolated nucleic acid molecule of claim 47 wherein said heterologous polynucleotide sequence encodes a polypeptide.

49. (Previously presented) The isolated nucleic acid molecule of claim 48 wherein said heterologous polynucleotide sequence encodes a Fc polypeptide.

50. (Previously presented) A method for making a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 40 into a vector.

51. (Previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 40.

52. (Previously presented) The recombinant vector of claim 51 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

53. (Previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 40.

54. (Previously presented) The recombinant host cell of claim 53 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

55. (Previously presented) The isolated nucleic acid of claim 40, wherein said second polynucleotide sequence is selected from the group

consisting of (a) and (b), and wherein said first polynucleotide sequence encodes a polypeptide.

56. (Previously presented) A method for producing a polypeptide, comprising:

(a) culturing a host cell comprising the vector of claim 51 under conditions suitable to produce the polypeptide encoded by said nucleic acid; and

(b) recovering said polypeptide.

Claims 57-74 (Canceled)

75. (Currently amended) ~~The~~ An isolated nucleic acid ~~of claim 74~~ which encodes a polypeptide comprising amino acids 30 to 259 of SEQ ID NO:1.

76. (Currently amended) An isolated nucleic acid comprising a first polynucleotide sequence 90% or more identical to a second polynucleotide

sequence selected from the group consisting of:

(a) a polynucleotide sequence encoding amino acids 1 to 259 of SEQ ID NO:1;

(b) a polynucleotide sequence encoding amino acids 30 to 259 SEQ ID NO:1; and

(c) a polynucleotide sequence complementary to any of the polynucleotide sequences in (a) or (b);

wherein percentage identity is determined using computer software with parameters that calculate identity over the full length of the second polynucleotide sequence ~~and that allows gaps of up to 10% of the total number of nucleotides of said nucleotide sequence.~~

77. (Previously presented) The isolated nucleic acid molecule of claim 76 wherein said second polynucleotide sequence is (a).

78. (Previously presented) The isolated nucleic acid molecule of claim 76 which comprises polynucleotide sequence (a).

79. (Currently amended) The isolated nucleic acid molecule of claim 76 wherein said nucleic acid molecule further comprises a heterologous polynucleotide sequence.

80. (Previously presented) The isolated nucleic acid molecule of claim 79 wherein said heterologous polynucleotide sequence encodes a polypeptide.

81. (Previously presented) The isolated nucleic acid molecule of claim 80 wherein said heterologous polynucleotide sequence encodes a Fc polypeptide.

82. (Previously presented) A method for making a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 76 into a vector.

83. (Previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 76.

84. (Previously presented) The recombinant vector of claim 83 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

85. (Previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 76.

86. (Previously presented) The recombinant host cell of claim 85 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

87. (Previously presented) A method for producing a polypeptide, comprising:

- (a) culturing a host cell comprising the vector of claim 83 under conditions suitable to produce the polypeptide encoded by said nucleic acid; and
- (b) recovering said polypeptide.

88. (Currently amended) An isolated nucleic acid molecule comprising a first polynucleotide sequence 90% or more identical to a second polynucleotide sequence selected from the group consisting of:

- (a) a polynucleotide sequence encoding an Apo-2DcR polypeptide having the complete amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209087;
- (b) a polynucleotide sequence encoding the mature Apo-2DcR polypeptide encoded by the cDNA clone contained in ATCC Deposit No. 209087; and
- (c) a polynucleotide sequence complementary to any of the polynucleotide sequences in (a) or (b) above;

wherein percentage identity is determined using computer software with parameters that calculate identity over the full length of the second polynucleotide sequence ~~and that allows gaps of up to 10% of the total number of nucleotides of said nucleotide sequence.~~

89. (Previously presented) The isolated nucleic acid molecule of claim 88 wherein said second polynucleotide sequence is (a).

90. (Previously presented) The isolated nucleic acid molecule of claim 88 which comprises polynucleotide sequence (a).

91. (Previously presented) The isolated nucleic acid molecule of claim 88 wherein said second polynucleotide sequence is (b).

92. (Previously presented) The isolated nucleic acid molecule of claim 88 which comprises polynucleotide sequence (b).

93. (Previously presented) The isolated nucleic acid molecule of claim 88 wherein said second polynucleotide sequence is (c).

94. (Previously presented) The isolated nucleic acid molecule of claim 88 which comprises polynucleotide sequence (c).

95. (Currently amended) The isolated nucleic acid molecule of claim 88 wherein said nucleic acid molecule further comprises a heterologous polynucleotide sequence.

96. (Previously presented) The isolated nucleic acid molecule of claim 95 wherein said heterologous polynucleotide sequence encodes a polypeptide.

97. (Previously presented) The isolated nucleic acid molecule of claim 96 wherein said heterologous polynucleotide sequence encodes a Fc polypeptide.

98. (Previously presented) A method for making a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 88 into a vector.

99. (Previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 88.

100. (Previously presented) The recombinant vector of claim 99 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

101. (Previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 88.



102. (Previously presented) The recombinant host cell of claim 101 wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

103. (Previously presented) The isolated nucleic acid molecule of claim 88 wherein said second polynucleotide sequence is selected from the group consisting of (a) and (b), and wherein said first polynucleotide sequence encodes a polypeptide.

104. (Previously presented) A method for producing a polypeptide, comprising:

- (a) culturing a host cell comprising the vector of claim 99 under conditions suitable to produce the polypeptide encoded by said nucleic acid; and
- (b) recovering said polypeptide.

105. (Previously presented) Isolated nucleic acid encoding Apo-2DcR polypeptide, wherein said Apo-2DcR polypeptide has at least 80% identity to the sequence of amino acid residues 1 to 259 of Fig. 1A (SEQ ID NO:1) and said Apo-2DcR polypeptide binds Apo-2 ligand.

106. (Previously presented) The nucleic acid of claim 105 wherein said Apo-2DcR polypeptide has at least 90% identity to the sequence of amino acid residues 1 to 259 of Fig. 1A (SEQ ID NO:1).

107. (Previously presented) The nucleic acid of claim 106 wherein said Apo-2DcR polypeptide has at least 95% identity to the sequence of amino acid residues 1 to 259 of Fig. 1A (SEQ ID NO:1).

108. (Previously presented) A vector comprising the nucleic acid of claim 105.

109. (Previously presented) The vector of claim 108 operably linked to control sequences recognized by a host cell transformed with the vector.

110. (Previously presented) A host cell comprising the vector of claim 108.

111. (Currently amended) A process of ~~using a nucleic acid molecule encoding producing Apo-2DcR polypeptide to effect production of Apo-2DcR polypeptide~~ comprising culturing the host cell of claim 110 under conditions sufficient to express said Apo-2DcR polypeptide.

112. (Previously presented) Isolated nucleic acid encoding Apo-2DcR polypeptide, wherein said Apo-2DcR polypeptide (a) is a fragment of the sequence of amino acid residues 1 to 259 of Fig. 1A (SEQ ID NO:1), (b) lacks a transmembrane domain, and (c) binds Apo-2 ligand.